## REMARKS

This amendment is being made pursuant to the Office Action mailed January 23, 2007. Claims 1-36 remain pending in the application.

**Rejection under 35 U.S.C.§ 112**

Various claims were rejected under section 112, second paragraph, because of the use of the trademark NITINOL® in the claims. This term has been removed from the claims and the term "nickel-titanium" substituted therefor. Accordingly, it is believed that this rejection has been overcome and withdrawal of the rejection is respectfully requested.

**Rejection Under 35 U.S.C. §103(a)**

Claims 1-11, 13-32 and 34-36 were rejected as being obvious in view of Ogata (U.S. 6,099,969). This rejection is respectfully traversed.

Initially, it will be noted that a minor amendment has been made to claim 1 to more positively set forth that the SMA particles enhance a compression-after-impact strength of the coating. This feature is not present or suggested with the coating agent disclosed in Ogata. Ogata involves the manufacture of a multi-functional coating that is to be used on various articles such as a waterproof sheet, various interior/exterior building base materials and the like to improve the "weatherability" of the article or base material. The coating is stated to have several properties, namely: ultraviolet screening, resistance to chemicals, electrostatic discharge/charge preventability, mothproofing, and other properties to impart superior sealing, film formation and transparency (col. 1, lines 41-49). The

Examiner will note that enhancing "compression-after-impact" strength is not one of the stated qualities of the coating.

The coating is stated to possibly include an amorphous type titanium oxide as well as conductive particles such as copper, nickel, chromium, titanium and aluminum. There is no mention or suggestion of using a nickel-titanium alloy to impart compression-after-impact strength to the coating. Presumably because this feature simply would not be needed in a coating that is to be applied to weatherproof sheeting or other components used in interior/exterior building base materials. In such applications, improving the weather resistance of the base material, and possibly providing other tangential benefits such as improved electromagnetic shielding and/or conductivity (which could improve the ability of the coating to dissipate a lightning strike on an exterior building wall surface) would all be qualities that one might wish a coating to have in a building application. However, this is fundamentally different than a coating that has shape memory alloy (SMA) particles that have a superelastic quality that can significantly improve the compression-after-impact strength of the coating. Since the use of SMA particles is not mentioned or even suggested in Ogata, and since the quality of enhanced compression-after-impact strength is also not mentioned as a desirable quality for the coating in Ogata, it is respectfully submitted that the subject matter of claims 1, 14 and 26 would not have been obvious to one skilled in the art simply from viewing Ogata. All of these claims make reference to the SMA or nickel-titanium particles improving the impact strength or, more particularly, the compression-after-impact strength, of the paint or coating. In view of this,

reconsideration and withdrawal of the rejections of independent claims 1, 14 and 26 is respectfully requested. In addition, it is believed that the dependent claims depending from these independent claims are also allowable over Ogata, and such action is respectfully requested.

Claims 1-36 were also rejected in view of Terasaka (US 5,770,305), in view of Yliopisto. This rejection is also respectfully traversed. The anisotropic conductive film (ACF) disclosed in Terasaka appears directed to solving the same problem as Japanese application 6-36613, which was addressed in a previous response. More specifically, Terasaka involves the construction of an ACF film that is well suited for conductively coupling the terminals of a liquid crystal display (LCD) to electronic components that will experience heat during their use. Terasaka discloses using conductive particles 44, such as Ni-Ti, that are "crushed by thermo-compression" such that they remain in a compressed state from a force acting on the ACF during use of the ACF. When a resin 40 in which the Ni-Ti particles 44 are used expands due to a change in humidity and/or temperature, thus pushing the connection terminals upwardly in the drawing of Figure 4, then the stress acting on the particles 44 is reduced. This allows the particles to expand in the thickness direction of the ACF, thus maintaining electrical conductivity between the connection terminals (col 3, lines 5-19).

From the above, it will be understood that the Ni-Ti particles are normally held in the crushed orientation. As such, this would essentially destroy any ability of the particles to provide additional compression-after-impact strength to the ACF.

But this construction is necessary if the Ni-Ti particles are going to be able to expand when needed to maintain conductivity.

This is basically the opposite application of Ni-Ti particles that is being claimed in the present application. With the coating and paint of the present application, the SMA particles need to be in an uncompressed (i.e., austenite) state in order to be able to provide any meaningful compression-after-impact strength to the coating. Thus, the way in which the Ni-Ti particles are used in Terasaka actually teaches away from the way SMA (or Ni-Ti) particles need to be used in the presently claimed paint or coating to provide the claimed benefit of improved impact resistance.

The Yliopisto reference appears to discuss various qualities of SMA particles, but does not show or suggest using SMA particles in a coating or paint to improve the impact strength of the coating or paint. Nor is there anything in Yliopisto to suggest combining its teachings with Terasaka to produce the subject matter being claimed in the present application. For at least these reasons, reconsideration and withdrawal of the rejection of claims 1-36 based on the Terasaka/Yliopisto combination is respectfully requested.

No Motivation To Combine References

The Examiner will appreciate that it is well established by the CAFC that there must be some teaching, motivation or desirability to combine the prior art references. A general relationship between fields of the prior art patents that are being combined is not sufficient to establish the suggestion or motivation. See e.g.,

C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352 (Fed. Cir. 1998). A general relationship between the fields of the prior art references is not sufficient to establish the required "suggestion" or "motivation". Interactive Techs., Inc. v. Pittway Corp., Civ. App. No. 98-1464, slip op. at 13 (Fed. Cir. June 1, 1999) (unpublished), cert. denied, 528 U.S. 528 U.S. 1046 (1999).

Furthermore, the Federal Circuit has stated:

> The genius of invention is often a combination of known elements which in hindsight seems preordained. To prevent hindsight invalidation of patent claims, the law requires some "teaching, suggestion or reason" to combine the cited references. . . . When the art in question is relatively simple, as is the case here, the opportunity to judge by hindsight is particularly tempting. Consequently, the tests of whether to combine references need to be applied rigorously.

McGinley v. Franklin Sports Inc., 262 F.3d 1339, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001) (citing Gambro Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573, 1579, 42 USPQ 2d 1378, 1383 (Fed. Cir. 1997).

In this example, there is nothing from the references themselves that would suggest to the skilled artisan the desirability of combining the references as the Examiner has done.

References Cannot Be Combined If the Modification Would Render The Prior Art Unsatisfactory For Its Proposed Purpose

It is also well established that if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900,221 USPQ 1125 (Fed. Cir. 1984) MPEP 2143.01.

Additionally, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (C.C.P.A. 1959) MPEP 2143.01.

In the present case, incorporating the superelastic qualities discussed in Yliopisto into the ACF material disclosed in Terasaka would destroy the characteristic (i.e., expandability) that the Ni-Ti particles are being used for in Terasaka. Thus, it is respectfully submitted that this forms an additional basis for supporting the assertion that it is improper to combine the Terasaka and Yliopisto references as the Examiner has done.

Accordingly, it is respectfully maintained that the combination of references applied by the Examiner has been made in hindsight using the pending claims as a road map.

## Conclusion

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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